

Syllabus

WRHS H Chemistry

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Text: Modern Chemistry

Course Overview

Chemistry covers the basic principles of the makeup and transformation of substances. Emphasis is on the development of chemical concepts with the equations and calculations necessary for their understanding. Laboratory experiments are used in the development of the concepts and to illustrate proper techniques.

Learning Objectives

This course will cover topics including the periodic table, atomic structure, the dynamics of chemical reactions, solution chemistry, qualitative and quantitative behavior of gases, acid/base chemistry, and thermochemistry. These topics will not be treated singularly, however, a heavy emphasis will be placed on how all of these topics are intertwined together.

Requirements/Expectations (see Science Dept. Philosophy on Back)

Honors Science at Wachusett implies you are one of the best and brightest in your class. Students taking this course are expected to be hardworking, motivated, organized, and possess math skills above grade level. Also the ability to memorize and apply information is critical to surviving chemistry. Typically students who do not possess these qualities have not done as well as they would have hoped. The very nature of chemistry is that it builds upon itself. As the year progresses we will be applying information we have previously learned to new topics and illustrate how the material is all integrated. Chemistry is one topic that is broken down to the 20 chapters in the book we will cover this year. One of our main goals is to show you how all of the chapters are linked, to make you better thinkers and students.

All students are expected to bring a writing implement, scientific calculator (graphing calculators are prohibited), and a notebook to each class. Students will not be supplied any of these items if they are forgotten. Promptness is also required. **Any student who is tardy to class will be after school for a detention within 24 hours.**

Of course, students are expected to be to class on time with their homework completed to the best of their ability (see homework policy on back). In addition, all work must be shown when doing homework or taking a test or quiz. This is to the student's benefit as partial credit will be awarded. Any answer that does not show the student's work will result in the loss of some credit for that problem.

Students who are absent will be held accountable for the work they missed, in accordance with the student handbook. I will make my class notes available to students, and it is also a good idea to obtain the missed notes from a fellow student. A missed laboratory will need to be made within one week of the lab. Labs can be made up on the following Monday or Thursday (these days are subject to change).

NO LATE WORK WILL BE ACCEPTED

It is imperative that each student behave properly, respect each other, respect the instructor, and respect the room in which the class is taught. Inappropriate behavior will not be tolerated in any form, especially in the laboratory. Lab safety is of the utmost importance. Any misconduct during a laboratory will result in a zero for that lab assignment.

Tests, quizzes and labs vary by how many points they are worth (but are weighted fairly). Grades are calculated by calculating a percentage of points you have compared to how many you could have.

Extra Help

I will be available before or after school any day for extra help (except Friday). Preferably, I would appreciate the student making an appointment first. I am very aware how difficult this subject is and I am willing to provide support for any student who would like it. **Unfortunately, there will be no opportunities for students to do extra credit assignments.**

The Project

As you know the Honors Science Program requires students to conduct an independent research project. The project as you know is worth 10% of your total course grade. Throughout the year there will be several deadlines to be met in which your lab notebook will be evaluated. The entire project will be due the Monday before April vacation (you will thank me the week you get back from vacation). The final project must consist of a poster, formal write-up, and a five minute presentation.

All deadlines will be outlined in a later document as well as project guidelines. The project is yours to choose. Some of you may wish to continue one from a previous year. Other students may want to try something new. Remember to view this as an opportunity to exercise your mind and not just one more hoop you have to jump through.

NO LATE PROJECTS WILL BE ACCEPTED

Department Philosophy

The Science department of Wachusett Regional High school strives for excellence in the science education of all its graduates. We recognize the fact that science is a human endeavor designed to achieve an increasingly comprehensive and reliable understanding of the human species and its environment. Scientific literacy is an important key to a functioning, technology-based society.

The learning objectives of the science department are:

- *To instill and appreciation for the study of science as a human activity worthy of academic pursuit.
- *To provide a basic understanding of how nature works in both living (life science) and non-living (physical science) systems, and to show their interrelatedness.
- *To teach students the procedures and techniques used in scientific methodology (e.g. forming a hypothesis, conducting experiments, collecting and analyzing data to draw logical conclusions, etc.)
- *To challenge and stimulate students to use, refine and communicate their powers of creative thinking, problem recognition, and problem solving in scientific application of both hypothetical and real world situations.
- *To provide a strong foundation to help our graduates achieve some level of confidence and success in their introductory college classes.

The WRHS Science Curriculum is designed to provide all students the opportunity to meet the stated objectives in a logical, sequential comprehensive and varied manner.

Science Department Homework Policy

"The WRHS Science Department believes that homework is necessary to help our students achieve at the high academic level necessary for college preparation. Schoolwork done outside of classtime provides training in study habits, skills and discipline; it reinforces and increases background knowledge and conceptual understanding, and it provides experiences in problem solving and self monitoring. In particular, it provides students with an opportunity for them to take personal responsibility for their own achievement."

VIOLATIONS OF ACADEMIC INTEGRITY

All students' academic work must reflect their own honest efforts. Cheating and plagiarism in any form will not be tolerated. This includes, but is not limited to copying homework, papers, lab reports, or quiz or test answers; acquiring or disseminating quizzes or tests before they are administered; or using information from the Internet or other outside sources without proper attribution.

Any student known to have cheated will be subjected to penalties, up to receiving "0" for the work. Possible penalties will be made known to each class by the teacher and will be included in the course syllabus.

Students who collaborate with others in cheating by allowing their papers to be copied or by other means will be subjected to penalties commensurate with their involvement, which may include the student receiving "0" for the work or suffering significant grade reduction.

In all cases, the principal or the class administrator along with the department head and teacher will be informed about both the incident and the penalty imposed, and the parent(s) or guardian(s) will be notified. The administration reserves the right to impose other penalties up to and including removal from the course, removal from honor societies, and loss of eligibility for scholarships with "honor" as criteria.